



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,266	04/22/2004	Atsushi Koyama	P25239	6444
7055	7590	03/03/2006		
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER O HERN, BRENT T	
			ART UNIT 1772	PAPER NUMBER

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,266	<b>Applicant(s)</b> KOYAMA ET AL.	
	<b>Examiner</b> Brent T. O'Hern	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 7 and 8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>15 JULY 2004</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicants' election with traverse of Group I (claims 1-6) in the reply filed on January 9, 2006 is acknowledged. The traversal is on the ground(s) that there would not have been a serious burden to examine the inventions disclosed in Groups II and III. This is not found persuasive because, as mentioned in the last Office Action of December 7, 2005, the inventions have acquired a separate status in the art as shown by their different classification, and a search for all the claims would be of undue burden to the examiner.

The requirement is still deemed proper and is therefore made FINAL.

### *Specification*

2. The **abstract** of the disclosure is objected to because of undue length, **16 lines**. The abstract shall not exceed 15 lines. Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "**which has a center mounting hole formed in a central part thereof**" in claim 1, lines 2-3 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "which has a center mounting hole formed in a

Art Unit: 1772

central part thereof". It is unclear whether the center mounting hole is part of the information recording medium or the perform. Furthermore, it is unclear what "thereof" is referring to.

The phrase **"has at least one type of functional layer formed on a first surface thereof"** in claim 1, lines 4-5 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "has at least one type of functional layer formed on a first surface thereof". It is unclear how a functional layer can have types and if so how to distinguish a type from a non-type. It is also unclear whether "thereof" is referring to the first surface, a particular functional layer, a perform or something else.

The phrase **"wherein a second cavity that is formed as one of a circular recess and a ring shaped concave and composes part of the center mounting hole on the first surface side is formed in a central part of the first surface"** in claim 1 lines 7-10 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "wherein a second cavity that is formed as one of a circular recess and a ring shaped concave and composes part of the center mounting hole on the first surface side is formed in a central part of the first surface". It is unclear how a second cavity can be a "circular recess" when a circle is a planar.

Furthermore, it is unclear how a cavity can be a ring shaped concave. The applicant appears to be using "concave", typically an adjective, as a noun thus it is unclear what the applicant is stating.

Furthermore, it is unclear what the applicant is referring to when the applicant states "composes part of the center mounting hole". It is unclear whether the applicant

Art Unit: 1772

is referring to the cavity, a ring shaped concave or something else. Additionally, it is unclear whether the applicant mistakenly used “composes” instead of another term such as comprising, etc.

Furthermore, it is unclear what the applicant is referring to when the applicant states “on the first surface side is formed in a central part of the first surface”. It is unclear whether the second cavity, circular recess, ring shaped concave, center mounting hole or something else is on the first surface. Furthermore, it is unclear how a cavity or one of the previously listed objects can be on a surface side.

Furthermore, it is unclear what the applicant is referring to when the applicant states “is formed in a central part of the first surface”. It is unclear how a first surface side can be part of the first surface as well as being formed in the central part.

The phrase **“and a first cavity that is formed as a recess and composes part of the center mounting hole”** in claim 1 lines 11-13 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by “and a first cavity that is formed as a recess and composes part of the center mounting hole”. It is unclear whether there is a difference between cavity and recess and if so what this difference is. Furthermore, it is unclear how a recess can be part a center mounting hole. Additionally, it is unclear whether the applicant mistakenly used “composes” instead of a different word.

The phrase **“a corner part between an inner side surface forming the second cavity and the first surface is beveled”** in claim 2 lines 2-4 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by “a

Art Unit: 1772

corner part between an inner side surface forming the second cavity and the first surface is beveled". It is unclear how a corner can have a part. Furthermore, it is unclear whether the corner part and the first surface are in the second cavity or somewhere else. Furthermore, it is unclear whether the first surface, the corner or something else is beveled.

The phrase **"the second cavity is formed with a depth in a range of 50 to 150  $\mu\text{m}$  inclusive"** in claim 3 lines 2-3 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "the second cavity is formed with a depth in a range of 50 to 150  $\mu\text{m}$  inclusive". It is unclear whether the second cavity refers to the perform, the information recording medium or something else. Furthermore it is unclear whether "inclusive" refers to the depth of the cavity or something else.

The phrase **"a ring shaped concave whose outer diameter is equal to a diameter of an inner base surface of the first cavity, is formed in the inner base surface of the first cavity"** in claim 4 lines 2-5 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "a ring shaped concave whose outer diameter is equal to a diameter of an inner base surface of the first cavity, is formed in the inner base surface of the first cavity". It is unclear how a concave can have a ring shape. Furthermore, if the applicant intended to refer to a ring shaped concave in claim 1 then the applicant failed to provide proper antecedent basis.

Furthermore, it is unclear how "an inner base surface" can be formed in "the base surface".

Furthermore, it is unclear whether the diameter of the ring shaped concave is equal to "the" diameter of the inner base surface or to one of several base surfaces and if there are several base surfaces how this is possible.

The phrase **"a temporary center hole with a smaller diameter than an inner base surface of the first cavity, is formed in a central part of the inner base surface of the first cavity"** in claim 5 lines 2-5 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "a temporary center hole with a smaller diameter than an inner base surface of the first cavity, is formed in a central part of the inner base surface of the first cavity". It is unclear how a hole can be temporary and still be definite. Furthermore, it is unclear how a base can have hole in a central part and specifically what is the difference between central part and center.

The phrase **"a cylindrical ring whose outer diameter is smaller than the center mounting hole and whose inner diameter is equal to or larger than the diameter of the temporary center hole, and whose central axis matches or approximately matches a center of the temporary center hole is formed so as to protrude from the first surface"** in claim 6 lines 2-8 is vague and indefinite because it is unclear to one of ordinary skill in the art what is meant by "a cylindrical ring whose outer diameter is smaller than the center mounting hole and whose inner diameter is equal to or larger than the diameter of the temporary center hole, and whose central axis matches or approximately matches a center of the temporary center hole is formed so as to protrude from the first surface". It is unclear how the cylindrical ring can have a diameter smaller than the center mounting hole.

Furthermore, it is unclear whether “whose inner diameter” is referring to the ring, the hole or something else. Furthermore, it is unclear whether “whose central axis” is referring to the ring, the hole or something else. Furthermore, it is unclear whether “matches or approximately matches” means identical in diameter, every characteristic is identical or some other meaning. Furthermore, it is unclear whether the ring, hole, axis or something else is “protruding” from the first surface.

Since claims 2-6 depend directly or indirectly on claims 1 and 5, they also contain the indefinite limitations of claims 1 and 5. Clarification and/or correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (US 5,541,910).

Regarding claims 1, and 4-6 Tanaka ('910) teaches an information medium perform (FIG-1, #1) which has a center mounting hole (FIG-1 #3), has at least one functional layer (col. 5, lines 24-26 “recording layer(s)” a functional layer), wherein a second cavity (FIG-1, cavity with radius  $r_4$ ) and a first cavity (FIG-1, cavity with radius  $r_1$ ). As to the phrases “used to manufacture an information recording medium” and “for which at least one of recording and reproduction of information is possible” are given



little patentable weight since the applicant is introducing use limitations into the product claims (see MPEP 2173(q))

Regarding claim 2 Tanaka ('910) teaches an information medium perform wherein a corner between the second cavity and the first surface is beveled (*col. 4, line 11 "tapered" which is equivalent to beveled*).

Regarding claim 3 Tanaka ('910) teaches an information medium perform wherein the second cavity has a depth from 50 to 150  $\mu\text{m}$  (*col. 3, lines 32-34 and FIG-1 "h" wherein the maximum height is 0.5 mm/500  $\mu\text{m}$*  ).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571) 272-0496. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Howard Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BTO  
Brent T O'Hern  
Examiner  
Art Unit 1772  
February 24, 2006

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER

1772

2/26/06